

Serial No. 10/229,449
Declaration Under 37 C.F.R. 1.132

The weight average molecular weight of the PGAs was measured by gel permeation chromatography (GPC).

3. The results of the above-described study are set forth in Fig. 1 wherein solution viscosity (IV) in dl/g is set forth as a linear function of weight average molecular weight (MW), providing the relationship $IV = 0.0641MW + 0.0771$. Using this relationship, the solution viscosities of the PGAs of Comparative Example 1 and Examples 2-3 of the present application are determined in Fig. 2. As shown in Fig. 2, the solution viscosity of the PGA of Example 2 (MW=181,000) is about 0.45 dl/g greater than that of Comparative Example 1 (MW=110,000) (64.5% of the increasing rate of the viscosity), while the solution viscosity of the PGA of Example 3 (MW=235,000) is about 0.8 dl/g greater than that of Comparative Example 1 (MW=110,000) (136.4% of the increasing rate of the viscosity). These results therefore demonstrate that a large change in weight average molecular weight, as is achieved by the presently claimed process, is accompanied by a large change in solution viscosity.

4. Matsumoto discloses that the PGA chips having the terminated, i.e., capped, carboxyl end groups had a solution relative viscosity η_r of 1.59 (Example 3), while the PGA chips in which the carboxyl end groups were not terminated had a solution relative viscosity η_r of 1.41 (Comparative Example 3), whereby the solution relative viscosity η_r changed only 0.09 (6.4% of the increasing rate of the viscosity). This small change in solution relative viscosity η_r indicates that only a small change in molecular weight occurred in the end capping of Matsumoto and that a large increase in molecular weight as required by the claims of the present application, wherein a ratio (Mw_2/Mw_1) of a weight average molecular weight (Mw_2) of the ring-opening (co)polymer after the chain lengthening to a weight average molecular weight (Mw_1) of

Serial No. 10529,449
Declaration Under 37 C.F.R. 1.132

the ring-opening (co)polymer before the chain lengthening is 1.65 to 10.00, did not occur in the PGA of Matsumoto. Because the solution relative viscosity, too, is supposed to be a linear function of MW, a change of 0.09 in solution viscosity as set forth in Fig. 2 results in a change of molecular weight of only about 14,000. Thus, the end capping of PGA as taught by Matsumoto does not involve a chain lengthening process as recited in the process of claim 11 of the present application.

5. He hereby declares that all statements made herein of his own knowledge are true and that all statements made herein on information and belief are believed to be true, and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code, Section 1001, and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

Respectfully submitted,

Name:


Kazuyuki YAMANE

Date: September 29, 2009

Serial No. 16/529,449
Declaration Under 37 C.F.R. 1.132

Fig. 1

Relationship of Mw and IV

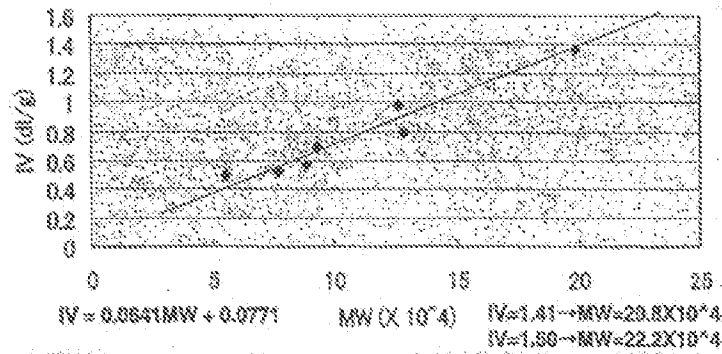


Fig. 2

Relationship of Mw and IV

